

SUNAMI
Application No. 10/759,070
October 30, 2006

REMARKS/ARGUMENTS

Reconsideration and allowance of this application are respectfully requested.

Currently, claims 1-22 are pending in this application.

Request to Fully Initial Form PTO-1449:

Form PTO-1449 of the Information Disclosure Statement (IDS) filed January 20, 2004 was returned with the Office Action. However, reference USP 6,230,094 cited on the Form PTO-1449 was not initialed as being considered. Applicant therefore respectfully requests that the next Office Action include a copy of a fully-initialed Form PTO-1449 as an indication that all cited references have been fully considered. For the Examiner's convenience, Applicant has attached hereto a copy of the partially initialed, returned Form PTO-1449.

Objection to the Drawings:

Page 23, line 25 of the specification has been amended to recite reference character S134. This portion of the specification is thus consistent with Fig. 6 of the drawings. Applicant thus respectfully requests that the objection to the drawings be withdrawn.

Allowable Subject Matter:

The Office Action indicated that claims 4-8 were objected to as being dependent upon a rejected base claim, but held that these claims would be allowable if rewritten in independent form. By this Amendment, claims 4, 5, 6 and 8 have been rewritten in independent form. Claim 7 depends from claim 6. Claims 4-8 are thus allowable.

Rejections Under 35 U.S.C. §102 and §103:

Claim 1 was rejected under 35 U.S.C. §102 as allegedly being anticipated by Watari et al (U.S. ‘081, hereinafter “Watari”). Applicant respectfully traverses this rejection.

For a reference to anticipate a claim, each element must be found, either expressly or under principles of inherency, in the reference. Each element of claim 1 is not found in Watari. For example, a first (main) computer comprising an operation routine unit and a determination routine unit as required by claim 1 is not found in Watari.

The background (pages 1-2) of the present application discusses a problem with the electronic control unit (ECU) described in Japanese Patent Laid-Open publication no. Hei 10-83321 (1998). Watari forms a counterpart publication of JP publication no. Hei 10-83321.

Like the invention required by claim 1, Watari’s ECU includes main and sub-CPUs. However, different functions are performed by each of the main and sub-CPUs. Namely, Watari discloses an operation routine unit for calculating a control signal for an object of control in a first (main) computer. On the other hand, a second (sub-CPU) computer includes both of: (i) a determination routine unit for checking the operation routine unit of the first computer; and (ii) a monitor routine unit for monitoring operation of the routine unit. Since both of (i) the determination routine unit and (ii) the monitor routine unit in Watari’s ECU are included in the second computer, it is difficult to accurately check the operation of the routine unit if the second computer has an abnormality. The reliability of monitoring the operation of the first (main) computer by

the sub (second) computer is thus not sufficiently ensured. (See page 2 of the specification describing Hei 10-83321).

The invention required by claim 1 addresses the above-described problem. In particular, claim 1 requires that both of the operation routine unit and the determination routine unit for checking the operation routine unit be included in the first computer, and that the monitor routine unit be included in the second computer. The operations for checking the respective routines are thus shared between the first and second computers, thereby improving the reliability of the overall unit. In contrast, Watari discloses the determination routine unit and the monitor routine unit being both in the second computer. Watari thus fails to disclose the determination routine unit in the first computer as required by claim 1. Watari thus fails to address the problems described above.

Accordingly, Applicant respectfully requests that the rejection of claim 1 under 35 U.S.C. §102 be withdrawn.

Claims 2-3 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over Watari in view of *In re Harza* in view of Sumizawa. Applicant respectfully traverses this rejection. Since claims 2-3 depend at least indirectly from claim 1, all of the comments made above with respect to claim 1 apply equally to claims 2-3. Sumizawa and *In re Harza* to resolve the above-described deficiencies of Watari. Moreover, claims 2-3 additionally require that the logic function has a first logic function for operating the control signal based on the predetermined detection signal and a second logic function for operating a simplified control signal based on the predetermined detection signal. The determination routine unit determines an abnormality of the

detected control signal by using the simplified control signal. Because the second logic function is configured more simply than the first logic function, an operation load can be reduced. Applicant submits that the combination of Watari and Sumizawa fails to teach or suggest these additional claim features, and thus claims 2-3 are patentable for these additional reasons.

New Claims:

New claims 9-22 have been added to provide additional protection for the invention. Claims 9-14 are each allowable by virtue of being dependent from an allowable independent claim. Independent claim 15 requires a first computer of an ECU being executed to operate a control signal based on a predetermined detection signal in accordance with a logic function, and in order to check an abnormal state of the logic function, to operate a dummy control signal by using dummy data stored in advance in accordance with the logic function and determine whether or not a relationship between the dummy control signal and an expected value is normal. Accordingly, Applicant submits that claim 15 and its dependents are allowable.

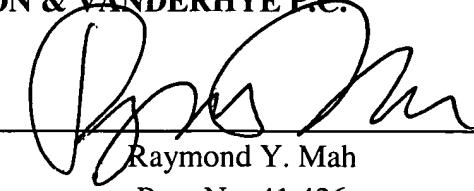
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Conclusion:

Applicant believes that this entire application is in condition for allowance and respectfully requests a notice to this effect. If the Examiner has any questions or believes that an interview would further prosecution of this application, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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